

Federal Operating Permit Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Shoosmith Brothers, Inc.
Facility Name:	Shoosmith Brothers, Inc.
Facility Location:	11800 Lewis Road Chester, Virginia 23831
Registration Number:	50752
Permit Number:	PRO50752

December 8, 2003
Effective Date

December 8, 2008
Expiration Date

Robert G. Burnley
Director, Department of Environmental Quality

December 8, 2003
Signature Date

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Permit Conditions, 26 pages
Source Testing Report Format, 1 page
NSPS Subpart WWW, 21 pages

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I. Facility Information

Permittee/Facility Name

Shoosmith Brothers, Inc.
11800 Lewis Road
Chester, Virginia 23831

Responsible Official

Thomas M. McKinley
Vice President

Contact person

Bruce Coble
Environmental Engineer
(804) 748-5823

AFS Identification Number: 51-041-0090

Facility Description: SIC Code 4953 - This facility consists of a municipal solid waste landfill that collects the landfill gas and burns it primarily in flares. The facility may also use the landfill gas as an alternative fuel in their asphalt plant. The asphalt plant is located adjacent to the landfill.

II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Stack ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment							
B01	hot mix asphalt plant construction started 1975	300 tons asphalt/hr, burner rated at 150 mmBtu/hr	Aeropulse 684-10 baghouse;	D04	V05	PM	April 18, 1975
Landfill Operations							
L01	Municipal Solid Waste Landfill Operating since 1976	27,143,177 cubic yards see (2) below	10" Landfill Gas Flare rated at 1620 SCFM	P01	V01	NMOC	
			10" Landfill Gas Flare rated at 1620 SCFM	P02	V02	NMOC	
			14" Landfill Gas Flare rated at 3210 SCFM	P03	V03	NMOC	
			hot mix asphalt plant	B01	V05	NMOC	
Storage Tanks							
T01	Diesel above-ground storage tank 1990	20,000 gallons					
T02	Diesel above-ground storage tank 1990	20,000 gallons					
T03	Gasoline above-ground storage tank 1990	20,000 gallons					
T04	Liquid asphalt above-ground storage tank, date unknown	30,000 gallons					

Emission Unit ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Stack ID	Pollutant Controlled	Applicable Permit Date
T05	Liquid asphalt above-ground storage tank, date unknown	20,000 gallons					
T06	Leachate underground storage tank 1995	15,000 gallons					
T07	Leachate underground storage tank 1997	10,000 gallons					
T08	Leachate underground storage tank 1997	15,000 gallons					

- (1) The landfill is controlled by a gas collection and control system which has the ability to duct the collected landfill gas to any one of three flares or to the hot mix asphalt plant. The hot mix asphalt plant is also listed under Fuel Burning Equipment since it is process equipment. The flares, however, are only listed as control equipment since their purpose is solely to control the landfill gas emissions. Also, about 25% of the landfill emissions are fugitive since well designed landfill gas collection and control systems are currently estimated by AP-42 to capture 75% of the landfill gas generated.
- (2) This landfill capacity was reported on the Amended Design Capacity Report submitted by Shoosmith Brothers and dated June 10, 1999.

III. Hot Mix Asphalt Plant Requirements - (emission unit B01)

A. Limitations

1. Particulate emissions from the asphalt plant shall be controlled by a fabric filter. The fabric filter shall be provided with adequate access for inspection and shall be in operation when the dryer is operating.
(9 VAC 5-50-260 and Condition 1 of April 18, 1975 permit)
2. The approved fuels for the rotary dryer are distillate oil, natural gas, and landfill gas. Distillate oil is defined as fuel oil that meets the specifications for fuel oil numbers 1 or 2 under the American Society for Testing and Materials, ASTM D396-78 "Standard Specification for Fuel Oils". A change in the fuels may require a permit to modify and operate.
(9 VAC 5-80-110 and 9 VAC 5-50-260)
3. The maximum sulfur content of the distillate oil to be burned in the asphalt plant shall not exceed 0.5 percent by weight per shipment.
(9 VAC 5-80-110 and 9 VAC 5-50-260)
4. Particulate emissions from the operation of the rotary dryer fabric filter exhaust stack shall not exceed 0.04 gr/dscf at 12% CO₂ or 7% O₂.
(9 VAC 5-50-260, 9 VAC 5-50-410 and 40 CFR 60.92(a))
5. Visible emissions from the asphalt plant=s affected facilities and hot mix asphalt loadout, transfer systems, and storage silo shall not exhibit 20 percent opacity, or greater, as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-50-260, 9 VAC 5-50-410 and 40 CFR 60.92(a))
6. When burning landfill gas, emissions of Non-Methane Organic Compounds (NMOC) from the asphalt plant shall be reduced by 98 weight percent or the outlet NMOC concentration from the asphalt plant shall be less than 20 parts per million by volume (ppmv), dry basis as hexane at 3 percent oxygen.
(9 VAC 5-50-410 and 40 CFR 60.752(b)(2)(iii)(B))
7. When burning landfill gas, the landfill gas shall be introduced in the flame zone of the asphalt plant. This equipment shall be operated within the temperature parameters established during the most recent performance test demonstrating compliance with the NMOC limitations in Condition III.A.6.
(9 VAC 5-50-410, 40 CFR 60.752(b)(2)(iii)(B) and 40 CFR 60.752(b)(2)(iii)(B)(1))
8. The asphalt plant shall be constructed and operated in accordance with 40 CFR 60 Subpart I.
(9 VAC 5-50-410)

B. Monitoring

1. The fabric filter shall be equipped with a device to continuously measure the differential pressure across the fabric filter. The device shall be installed in an accessible location

and shall be maintained by the permittee such that it is in proper working order at all times.

(9 VAC 5-80-110)

2. The permittee shall perform weekly inspections of the fabric filter during each week the asphalt plant is in operation. These inspections shall include an observation of the pressure drop across the fabric filter and, a visual observation, using 40 CFR 60 Appendix A, Method 22-like procedures (condensed water/steam is not a visible emission) for one minute to identify the presence of visible emissions from the fabric filter exhaust. If any of the visual observations exceed 10% opacity, a visible emissions evaluation (VEE) shall be conducted in accordance with 40 CFR 60, Appendix A, EPA Method 9, for a minimum of six (6) minutes. If any of the observations exceed 20% opacity, the VEE shall be conducted for a total of sixty (60) minutes. A Method 9 VEE shall not be required if the visible emission condition is corrected as expeditiously as possible such that no visible emissions exist; the emissions unit is operating at normal conditions; and, the cause and corrective measures taken are recorded. A record of each visible emissions observation shall be maintained, including any data required by 40 CFR 60 Appendix A, Method 9, if applicable. The record shall include, at a minimum, the date, time, name of the emission unit, the applicable emission requirement, the results of the observation and the name of the observer.

(9 VAC 5-80-110)

3. The permittee, when burning landfill gas in the asphalt plant, shall calibrate, maintain, and operate, according to manufacturer=s specifications, the following equipment at the asphalt:
 - a. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ± 1 percent of the temperature being measured expressed in degrees Celsius or $\pm 0.5^{\circ}\text{C}$, whichever is greater.
 - b. A device that records landfill gas flow to or bypass of the asphalt plant. The permittee shall either:
 - (1) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or
 - (2) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

(9 VAC 5-50-410 and 40 CFR 60.756(b))

C. Recordkeeping

1. The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:
 - a. The name of the fuel supplier,
 - b. The date on which the oil was received,
 - c. The volume of distillate oil delivered in the shipment,

- d. A statement that the oil complies with the American Society for Testing and Materials specifications for fuel oil numbers 1 and 2, and
 - e. The sulfur content of the oil.
(9 VAC 5-80-110)
2. The permittee shall maintain a pollution control device inspection log to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Region. The log shall include the date and time of all inspections of the fabric filter, the pressure drop across the fabric filter, the date and time of all visible emissions observations and Method 9 evaluations, whether or not there were visible emissions greater than 10% opacity, and any necessary corrective action. These records shall be available on site for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-110)
 3. The permittee shall keep up-to-date, readily accessible records of the data listed below. Records of monitoring shall be maintained for a minimum of 5 years.
 - a. The average combustion temperature of the asphalt plant when burning landfill gas measured at least every 15 minutes and averaged over the same time period as the performance test.
 - b. The percent reduction of NMOC achieved by the asphalt plant when burning landfill gas during the initial or most recent compliance test.
 - c. A description of the location at which the collected gas vent stream is introduced into the asphalt plant.
 - d. The indication of landfill gas flow to the asphalt plant recorded at least every 15 minutes or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines.
(9 VAC 5-50-410, 40 CFR 60.758(b) and 40 CFR 60.758(c)(2))
 4. The permittee shall keep up-to-date, readily accessible records for periods of operation when landfill gas is being combusted during which the parameter boundaries established for the asphalt plant during the most recent performance test are exceeded. The following constitute exceedances to be recorded and reported for the asphalt plant when burning landfill gas:
 - a. All 3-hour periods of operation during which the average combustion temperature was more than 28°C below the average combustion temperature during the most recent performance test determining compliance.
 - b. Changes in the location at which the vent stream is introduced into the flame zone.
(9 VAC 5-50-410 and 40 CFR 60.758(c))
 5. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the asphalt plant; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
(9 VAC 5-50-410 and 40 CFR 60.7(b))

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Test ports shall be provided at the appropriate locations.
(9 VAC 5-50-30 and 9 VAC 5-80-110)
2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ or EPA as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
PM/PM ₁₀	EPA Method 5 - The sampling time and sample volume for each run shall be at least 60 minutes and 31.8 dscf.
Visible Emission	EPA Method 9
NMOC	Method 25C or Method 18

(9 VAC 5-50-410, 40 CFR 60.32(b)(2), 40 CFR 60.754(d) and 9 VAC 5-80-110)

3. Performance tests shall be conducted for particulate matter from the asphalt plant fabric filter exhaust using Reference Method 5 to determine compliance with the emission limits contained in Condition III.A.4. The tests shall be performed, and demonstrate compliance, no later than 180 days after issuance of this permit. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Director, Piedmont Regional Office. Test report information shall contain a record of the pressure drop across the fabric filter for each test run. The permittee shall submit a test protocol at least thirty days prior to testing. Two copies of the test results shall be submitted to the Director, Piedmont Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-50-30, 9 VAC 5-80-1200 and 40 CFR 60.93(b)(1))
4. Concurrently with the initial performance tests, Visible Emission Evaluations (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 shall be conducted on the asphalt plant fabric filter exhaust. Each test shall consist of 30 sets of 24 consecutive observations (at 15 second intervals) to yield a six minute average. The details of the tests are to be arranged with the Director, Piedmont Regional Office. The evaluation shall be performed no later than 180 days after issuance of this permit. Should conditions prevent concurrent opacity observations, the Director, Piedmont Regional Office shall be notified in writing, within 7 days, and visible emission testing shall be rescheduled within thirty days. Rescheduled testing shall be conducted under the same conditions as the initial performance tests. Test report information shall contain a record of the pressure drop across the fabric filter for each set. Two copies of the test results shall be submitted to the Director, Piedmont Regional Office within 45 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-50-30, 9 VAC 5-80-110 and 40 CFR 60.93(b)(2))
5. Within 180 days of initially operating on landfill gas, performance tests shall be conducted for NMOC control efficiency or NMOC outlet concentration on the asphalt plant to show compliance with the standards listed in Condition III.A.6. of this permit using Reference Method 25C or Method 18. If using Method 18, the minimum list of compounds to be

tested are those in the most recent version of AP-42. The following equation shall be used to calculate efficiency:

$$\text{Control Efficiency} = (\text{NMOC}_{\text{in}} - \text{NMOC}_{\text{out}}) / (\text{NMOC}_{\text{in}}) \quad \text{Where:}$$

NMOC_{in} = mass of NMOC entering the asphalt plant
 NMOC_{out} = mass of NMOC exiting the asphalt plant

The tests shall be performed, and demonstrate compliance, no later than 180 days after initially operating the asphalt plant on landfill gas. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Director, Piedmont Regional Office. Test report information shall contain a record of the temperature at which combustion of the landfill gas takes place. The permittee shall submit a test protocol at least thirty days prior to testing. Two copies of the test results shall be submitted to the Director, Piedmont Regional Office within 180 days of initially operating on landfill gas and shall conform to the test report format enclosed with this permit.

(9 VAC 5-50-30, 9 VAC 5-80-1200, 40 CFR 60.752(b)(2)(iii)(B) and 40 CFR 60.754(d))

E. Reporting

1. The permittee shall submit semi-annual reports in accordance with Condition VIII.C.3. of this permit for fuel quality and for monitoring of the fabric filter. The format of the reports shall be arranged with the Director, Piedmont Regional Office and shall contain, at a minimum, the fuel quality analysis for each load of distillate oil received during each reporting period and the fabric filter monitoring log information for the reporting period.
(9 VAC 5-80-110)
2. Within 180 days after initially operating the asphalt plant on landfill gas, the permittee shall begin submitting semi-annual reports of the following information. The reports shall be submitted in accordance with Condition VIII.C.3 of this permit. The first report shall include the initial performance test report for the asphalt plant as required by Condition III.D.5 of this permit.
 - a. Value and time periods for exceedances of temperature requirements at the asphalt plant when the asphalt plant is burning landfill gas.
 - b. Description and duration of all periods when the asphalt plant, while burning landfill gas, is not operating properly for a period exceeding 1 hour and the length of time the equipment was not operating properly.
(9 VAC 5-50-410 and 40 CFR 60.757(f))
3. The permittee shall furnish written notification to the Director, Piedmont Regional Office of the anticipated dates of the performance tests required by III.D of this permit postmarked at least 30 days prior to the tests. Copies of the written notification shall be sent to:

Chief
Air Enforcement Branch (3AT20)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

(9 VAC 5-50-410 and 40 CFR 60.7(a))

IV. Landfill Requirements - (emission units L01, P01, P02, P03, and B01)

A. Limitations

1. The permittee shall install an active collection and control system that is designed to handle the maximum expected landfill gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system. The system shall collect landfill gas from each cell in the landfill in which initial solid waste has been placed for a period of 5 years or more if active or 2 years or more if closed or at final grade. The system shall collect landfill gas at a sufficient extraction rate to meet all operational requirements. The system shall be designed to minimize off-site migration of subsurface gas.

(9 VAC 5-50-410, 40 CFR 60.752(b)(2)(ii)(A) and 40 CFR 60.753(a))

2. The permittee shall route all the collected gas to a control system that complies with the requirements in either paragraph a, b or c of this condition.
 - a. An open flare, P01, P02 or P03, designed and operated in accordance with 40 CFR 60.18;
 - b. A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device, B01, is used for control, to either reduce NMOC by 98 weight-percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen.
 - (1) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.
 - (2) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored are specified in 40 CFR 60.756;
 - c. Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of paragraph a or b of this condition.

(9 VAC 5-50-410 and 40 CFR 60.752(b)(2)(iii))

3. The permittee shall operate the system such that negative pressure is maintained at each active wellhead except in case of fire or increased well temperature. Additionally, the permittee shall operate each interior, active wellhead in the collection system such that

the gas temperature is less than 55°C and with either a nitrogen level less than 20% or an oxygen level less than 5%. The permittee may establish a higher temperature, nitrogen, or oxygen value at a particular well by submitting to the DEQ, a higher operating value demonstration with supporting data showing that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

(9 VAC 5-50-410, 40 CFR 60.753(b) and 40 CFR 60.753(c))

4. The permittee shall operate the collection system such that the surface methane concentration is less than 500 parts per million (ppm) above background at the surface of the landfill. The permittee shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. All components of the leachate collection system that penetrate the surface of the landfill shall be included in the surface monitoring program. Areas with steep slopes or other dangerous areas such as the working face may be excluded after receiving approval from the Director, Piedmont Region.

(9 VAC 5-50-410 and 40 CFR 60.753(d))

5. The provisions for oxygen, nitrogen, temperature, and surface methane concentrations apply at all times except during periods of start-up, shutdown, or malfunction provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for P01, P02, P03, or B01.

(9 VAC 5-50-410 and 40 CFR 60.755(e))

6. The permittee shall operate the collection and control system such that all collected gases are vented to a control system, P01, P02, P03, or B01, designed and operated in compliance with 40 CFR 60.752(b)(2)(iii). In the event that the collection or control system is inoperable, the gas mover system shall be shutdown and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour.

(9 VAC 5-50-410 and 40 CFR 60.753(e))

7. The permittee shall operate the control system P01, P02, P03, or B01 at all times when the collected gas is routed to the system.

(9 VAC 5-50-410, 40 CFR 60.753(f), 40 CFR 60.18(c)(2) and 40 CFR 60.18(e))

8. When calculating emissions from the landfill for purposes of determining Prevention of Significant Deterioration (PSD) applicability, the permittee shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels using procedures found in the most recent version of AP-42, Compilation of Air Pollutant Emission Factors or other approved measurement procedures.

(9 VAC 5-50-410 and 40 CFR 60.754(c))

9. The permittee shall place each well or design component as specified in the design plan and shall install wells no later than 60 days after the date on which the initial solid waste has been in place in any cell or group of cells for a period of 5 years or more if active or 2 years or more if closed or at final grade.

(9 VAC 5-50-410 and 40 CFR 60.755(b))

10. P01, P02, and P03 shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

(9 VAC 5-50-410 and 40 CFR 60.18(c)(1))

11. P01, P02, and P03 shall be designed for and operated with an exit velocity less than 60 feet per second.
(9 VAC 5-50-410 and 40 CFR 60.18 (c)(4)(i))
12. The net heating value of the landfill gas shall be at least 200 Btu/standard cubic foot.
(9 VAC 5-50-410 and 40 CFR 60.18 (c)(3)(ii))
13. Except where this permit is more restrictive than the applicable requirement, the municipal solid waste landfill gas collection and control system, shall be constructed and operated in accordance with 40 CFR 60, Subpart WWW.
(9 VAC 5-50-410)

B. Monitoring

1. The permittee shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, corrective action shall be taken within 5 calendar days of the exceedance. If a negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the system shall be expanded within 120 days of the initial measurement of positive pressure.
(9 VAC 5-50-410 and 40 CFR 60.755(a)(3))
2. The permittee shall monitor each active well monthly for temperature and nitrogen or oxygen. If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance.
(9 VAC 5-50-410 and 40 CFR 60.755(a)(5))
3. The permittee shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals for each collection area for which waste has been in place for two or more years if closed or at final grade or for which waste has been in place for five or more years if active. All components of the leachate collection system that penetrate the surface of the landfill shall be included in the surface monitoring program. This surface methane monitoring shall take place on a quarterly basis. Areas with steep slopes or other dangerous areas such as the working face may be excluded from this monitoring after receiving approval from the Director, Piedmont Regional Office.
(9 VAC 5-50-410 and 40 CFR 60.755(c)(1))
4. Any reading of 500 ppm or more above background at any location shall be recorded as a monitored exceedance and the actions specified below shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements.
 - a. The location of the exceedance shall be marked and recorded.
 - b. The permittee shall perform cover maintenance or make adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of the exceedance. The location shall be re-monitored within 10 calendar days of detecting the exceedance.
 - c. If the re-monitoring of the location shows a second exceedance, the permittee shall

take additional corrective action and shall monitor the location again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the location, the permittee shall install a new well or other collection device within 120 calendar days after the initial exceedance.

- d. Any location that initially showed an exceedance but has a methane concentration less than 500 ppm above background at the 10-day re-monitoring shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 ppm above the background, no further monitoring of that location is required until the next quarterly monitoring. If the 1-month re-monitoring shows an exceedance, the permittee shall repeat the requirements of either paragraph (c) or paragraph (e) of this condition.
 - e. For any location where the monitored methane concentration equals or exceeds 500 ppm above background 3 times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes, or control devices, and a corresponding timeline for installation may be submitted to the Director, Piedmont Regional Office for approval.
(9 VAC 5-50-410 and 40 CFR 60.755(c)(5))
5. The permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.
(9 VAC 5-50-410 and 40 CFR 60.755(c)(4))
6. The permittee shall install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:
- a. Measure the gauge pressure in the gas collection header on a monthly basis; and
 - b. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis; and
 - c. Monitor temperature of the landfill gas on a monthly basis.
(9 VAC 5-50-410 and 40 CFR 60.756(a))
7. The permittee shall install, calibrate, maintain, and operate according to manufacturer=s specification the following equipment for open flares designated P01, P02, and P03:
- a. A heat sensing device at the flame to indicate the continuous presence of flame.
 - b. A device that records flow to or bypass of the flare. The permittee shall either:
 - (1) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or
 - (2) Secure the bypass line valve in the closed position with a car-seal or lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.
(9 VAC 5-50-410, 40 CFR 60.756(c) and 40 CFR 60.18(f)(2))

C. Recordkeeping

1. The permittee shall record and have readily accessible for inspection purposes, instances when positive pressure occurs in efforts to avoid a fire.
(9 VAC 5-50-410 and 40 CFR 60.753(b)(1))
2. The permittee shall develop and have readily accessible a surface monitoring design plan that includes a topographical map with the monitoring route and the rationale for any site specific deviations from the 30 meter intervals.
(9 VAC 5-50-410 and 40 CFR 60.753(d))
3. The permittee shall keep, for at least 5 years, up-to-date, readily accessible, on-site records of the design capacity report dated July 29, 1997; the current amount of solid waste in place; and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats approved by DEQ are acceptable.
(9 VAC 5-40-410 and 40 CFR 60.758(a))
4. The permittee shall keep, for the life of the control equipment, up-to-date, readily accessible records of the data listed below, as measured during initial performance tests or compliance determinations. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until the equipment is removed.
 - a. The landfill's maximum expected gas generation flow rate.
 - b. The landfill's density of wells, horizontal collectors, and surface collectors.
 - c. When landfill gas is being combusted in the asphalt plant, the average combustion temperature of the asphalt plant shall be measured at least every 15 minutes and averaged over the same time period as the performance test.
 - d. The percent reduction of NMOC achieved by the asphalt plant when burning landfill gas during the initial or most recent compliance test.
 - e. A description of the location at which the collected gas vent stream is introduced into the asphalt plant.
 - f. For the open flares designated P01, P02, and P03: the flare type (i.e., steam-assisted, air assisted, or non-assisted); all visible emission readings; heat content determinations; flow rate or bypass flow rate measurements; exit velocity determinations made during the initial performance test; continuous records of the flare flame monitoring; and records of all periods of operations during which the flare flame is absent.
(9 VAC 5-50-410 and 40 CFR 60.758(b))
5. The permittee shall keep for 5 years, up-to-date, readily accessible, continuous records of the following equipment operating parameters specified for monitoring:
 - a. wellhead gauge pressures measured monthly;
 - b. wellhead temperatures measured monthly;

- c. wellhead nitrogen or oxygen concentrations measured monthly;
 - d. indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines;
 - e. presence of flame or pilot flame in each flare and all periods of operation in which the flame or pilot flame is absent in each flare;
 - f. results of quarterly surface methane monitoring; and
 - g. periods of malfunctions of control or collection devices.
(9 VAC 5-50-410 and 40 CFR 60.758(c))
6. The permittee shall keep, for the life of the collection system, an up-to-date, readily accessible plot map showing each existing and planned collector in the system. This map shall also provide a unique identification location label for each collector. Additionally, the permittee shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors.
(9 VAC 5-50-410 and 40 CFR 60.758(d))
7. The permittee shall keep, for at least 5 years, up-to-date, readily accessible records of all collection and control system exceedances of the operational standards, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.
(9 VAC 5-50-410 and 40 CFR 60.758(e))
8. The permittee shall maintain records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of the landfill gas collection and control system; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
(9 VAC 5-50-410 and 40 CFR 60.7(b))

D. Testing

- 1. The permitted facility shall be constructed to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports will be provided at the appropriate locations.
(9 VAC 5-50-30, 9 VAC 5-80-110 and 40 CFR 60.8(e)(1))
- 2. If measured, the nitrogen level at each wellhead shall be determined using Method 3C, unless an alternative test method is established as allowed by 40 CFR 60.752(b)(2)(i).
(9 VAC 5-50-410 and 40 CFR 60.753(c)(1))
- 3. Unless an alternative test method is established as allowed by 40 CFR 60.752(b)(2)(i), the oxygen level at each wellhead shall be determined by an oxygen meter using Method 3A or 3C except that:
 - a. The span shall be set so that the regulatory limit is between 20 and 50 percent of the span.
 - b. A data recorder is not required.

- c. Only a zero and a span calibration gas are required. Ambient air may be used as span.
 - d. A calibration error check is not required.
 - e. The allowable sample bias, zero drift, and calibration drift are $\pm 10\%$.
(9 VAC 5-50-410 and 40 CFR 60.753(c)(2))
4. The background concentration of methane during surface emissions monitoring shall be determined for the instrument measuring the surface concentrations of methane by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.
(9 VAC 5-50-410 and 40 CFR 60.755(c)(2))
5. Surface emission monitoring shall be performed in accordance with 40 CFR 60, Appendix A, Method 21, Section 4.3.1, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.
(9 VAC 5-50-410 and 40 CFR 60.755(c)(3))
6. The portable analyzer used to determine the surface methane concentration shall meet the instrument specifications provided in 40 CFR 60, Appendix A, Method 21, Section 3, except that Amethane shall replace all references to VOC. The calibration gas shall be methane, diluted to a nominal concentration of 500 ppm in air. To meet the performance evaluation requirements in section 3.1.3 of Method 21, the instrument evaluation procedures of section 4.4 of Method 21 shall be used. The calibration procedures in section 4.2 of Method 21 shall be followed immediately before commencing a surface monitoring survey.
(9 VAC 5-50-410 and 40 CFR 60.755(d))

E. Reporting

- 1. The permittee shall submit annually records reporting instances when positive pressure at a wellhead occurred due to efforts to avoid a fire. If no such instances occurred, the permittee shall inform the DEQ in writing that no such instances occurred.
(9 VAC 5-50-410 and 40 CFR 60.753(b)(1))
- 2. The permittee shall submit semi-annual reports of the following information. The reports shall be submitted in accordance with Condition VIII.C.3 of this permit.
 - a. Value and time periods for exceedances of pressure, temperature, nitrogen or oxygen measurements at wellheads.
 - b. Value and time periods for exceedances of temperature requirements at the asphalt plant when the asphalt plant is burning landfill gas.
 - c. Value and time periods of landfill gas flow to control bypasses.
 - d. Value and time periods for when flame was not detected at any of the open flares designated P01, P02, and P03.
 - e. Description and duration of all periods when the open flares designated P01, P02, and P03 and the asphalt plant are not operating for a period exceeding 1 hour and

the length of time the equipment was not operating.

- f. All periods when the collection system was not operating for more than 5 days.
- g. Location of each exceedance of the 500 ppm methane concentration standard and the concentration recorded at each location for which an exceedance was recorded in the previous month.
- h. Date of installation and the location of each well or collection system expansion added due to exceedances of oxygen, nitrogen, or pressure; added due to the age of the initial solid waste placed in each cell or group of cells; or added due to surface methane concentration exceedances.

One copy of each compliance report shall be submitted to the U.S. Environmental Protection Agency at the following address:

Associate Director
Office of Air Enforcement (3AP10)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

(9 VAC 5-50-410 and 40 CFR 60.757(f))

F. Requirements for Landfill Closure

- 1. The collection and control system may be capped or removed provided that all the following conditions are met:
 - a. The landfill shall be a closed landfill. A closed landfill is defined as a landfill in which solid waste is no longer being placed and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed in the General Provisions of 40 CFR 60. A closure report shall be submitted to DEQ.
 - b. The collection and control system shall have been operating at least 15 years.
 - c. The calculated NMOC gas production shall be less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart and no more than 180 days apart.
- (9 VAC 5-50-410 and 40 CFR 60.752(b)(2)(v))
- 2. The permittee shall calculate the NMOC emission rate for purposes of determining when the system can be removed using the following equation:

$$M_{nmoc} = 1.89 \times 10^{-3} Q_{lfg} \times C_{nmoc} \quad \text{where:}$$

M_{nmoc} = mass emission rate of NMOC, Mg/year,
 Q_{lfg} = flow rate of landfill gas, cubic meters/minute,
 C_{nmoc} = NMOC concentration, ppmv as hexane.

- a. Q_{lfg} shall be determined by measuring the total landfill gas flow rate at the common header pipe to the control device using a gas flow measuring device calibrated

according to the provisions of 40 CFR 60, Appendix A, Method 2E, Section 4.

- b. C_{nmoc} shall be determined by collecting and analyzing landfill gas sampled from the common header pipe using Method 25C or Method 18. The minimum list of compounds shall be those published in the most recent version of AP-42 for Method 18. The sample location on the common header pipe shall be before any condensate removal or refining units. The permittee shall divide the NMOC concentration from Method 25C by six to convert from C_{nmoc} as carbon to C_{nmoc} as hexane.
- c. The permittee may use another method to determine landfill gas flow rate and NMOC concentration if the method has been approved by the DEQ.
(9 VAC 5-50-410 and 40 CFR 60.754(b))
3. The permittee shall submit a closure report to DEQ within 30 days of waste acceptance cessation. DEQ may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 9 VAC 20-80-250 E. and F. If a closure report has been submitted to the DEQ, no additional wastes may be placed into the landfill without filing a notification of modification.
(9 VAC 5-50-410 and 40 CFR 60.757(d))
4. The permittee shall submit an equipment removal report to the DEQ 30 days prior to removal or cessation of operation of the control equipment. The report shall contain the following:
 - a. A copy of the closure report.
 - b. A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired.
 - c. Dated copies of 3 successive NMOC emission rate reports demonstrating the landfill is no longer producing 50 Mg or greater of NMOC per year.

DEQ may request additional information to verify that all conditions for removal have been met.

(9 VAC 5-50-410 and 40 CFR 60.757(e))

V. Storage Tank Requirements - (emission units T01, T02, T03, T04, T05, T06 and T08)

The permittee shall keep readily accessible records showing the dimension of each storage vessel listed above and an analysis showing the capacity of each storage vessel. These records shall be kept by the permittee for the life of the storage vessel.

(9 VAC 5-50-410, 40 CFR 60.116b(a) and 40 CFR 60.116b(b))

VI. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation ¹ (9 VAC_)	Pollutant Emitted (5-80-720 B.)	Rated Capacity (5-80-720 C.)
4a	leachate tank	5-80-720 B	VOC	2,000 gal

Emission Unit No.	Emission Unit Description	Citation ¹ (9 VAC _)	Pollutant Emitted (5-80-720 B.)	Rated Capacity (5-80-720 C.)
4b	leachate tank	5-80-720 B	VOC	2,000 gal
4c	leachate tank	5-80-720 B	VOC	2,000 gal
4d	leachate tank	5-80-720 B	VOC	2,000 gal
4e	leachate tank	5-80-720 B	VOC	2,000 gal
5a	leachate tank	5-80-720 B	VOC	4,000 gal
5b	leachate tank	5-80-720 B	VOC	4,000 gal
5c	leachate tank	5-80-720 B	VOC	4,000 gal
5d	leachate tank	5-80-720 B	VOC	4,000 gal
5e	leachate tank	5-80-720 B	VOC	4,000 gal
5f	leachate tank	5-80-720 B	VOC	4,000 gal
5g	leachate tank	5-80-720 B	VOC	4,000 gal
5h	leachate tank	5-80-720 B	VOC	4,000 gal
6a	leachate tank	5-80-720 B	VOC	5,000 gal
6b	leachate tank	5-80-720 B	VOC	5,000 gal
6c	leachate tank	5-80-720 B	VOC	5,000 gal
9	underground oil/water separator	5-80-720 C	VOC	700 gal
10	underground waste oil tank	5-80-720 C	VOC	2,000 gal

¹The citation criteria for insignificant activities are as follows:
9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application
9 VAC 5-80-720 B - Insignificant due to emission levels
9 VAC 5-80-720 C - Insignificant due to size or production rate

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

VII. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements that have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of applicability
None Identified		

Nothing in this permit shield shall alter the provisions of § 303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to § 114 of the federal Clean Air Act, (ii) the Board pursuant to § 10.1-1314 or § 10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to § 10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-80-140)

VIII. General Conditions

A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9 VAC 5-80-110 N)

B. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.
3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.
(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

C. Recordkeeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
 - a. The date, place as defined in the permit, and time of sampling or measurements.
 - b. The date(s) analyses were performed.
 - c. The company or entity that performed the analyses.
 - d. The analytical techniques or methods used.
 - e. The results of such analyses.

- f. The operating conditions existing at the time of sampling or measurement.
(9 VAC 5-80-110 F)
2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
(9 VAC 5-80-110 F)
3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:
 - a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
 - b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:
 - (1) Exceedance of emissions limitations or operational restrictions;
 - (2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,
 - (3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
 - c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."
(9 VAC 5-80-110 F)

D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.
2. The identification of each term or condition of the permit that is the basis of the certification.
3. The compliance status.

4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incidence of non-compliance.
5. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
6. Such other facts as the permit may require to determine the compliance status of the source.

One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00)
U.S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029.

(9 VAC 5-80-110 K.5)

E. Permit Deviation Reporting

The permittee shall notify the Director, Piedmont Region within four daytime business hours after discovery of any deviations from the permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition IX.C.3. of this permit.

(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

F. Failure/Malfunction Reporting

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Director, Piedmont Region by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, Piedmont Region.

(9 VAC 5-20-180 C)

G. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.

(9 VAC 5-80-110 G.1)

H. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)

I. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)

J. Permit Modification

A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1790, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9 VAC 5-80-190 and 9 VAC 5-80-260)

K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege.
(9 VAC 5-80-110 G.5)

L. Duty to Submit Information

1. The permittee shall furnish to the Board, within a reasonable time, any information that the board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9 VAC 5-80-110 G.6)
2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-110 K.1)

M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

N. Fugitive Dust Emission Standards

During the operation of a stationary source or any building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent

particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
2. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;
4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-50-90)

O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9 VAC 5-50-20 E)

P. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80 Article 1.

(9 VAC 5-80-110 J)

Q. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

R. Reopening For Cause

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

S. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-150 E)

T. Transfer of Permits

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160)
2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)
3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

U. Malfunction as an Affirmative Defense

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.
2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:
 - a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
 - b. The permitted facility was at the time being properly operated.
 - c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.
 - d. The permittee notified the Board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F 2 b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.
3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.
4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.
(9 VAC 5-80-250)

V. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe, any permit for any of the grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-190 C and 9 VAC 5-80-260)

W. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-80 E)

X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F. (40 CFR Part 82, Subparts A - F)

Y. Asbestos Requirements

The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150). (9 VAC 5-60-70 and 9 VAC 5-80-110 A.1)

Z. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68. (40 CFR Part 68)

AA. Changes to Permits for Emissions Trading

No permit revision shall be required, under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. (9 VAC 5-80-110 I)

BB. Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.
2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

Source Testing Report Format

Cover

1. Plant name and location
2. Units tested at source (indicate Ref. No. used by source in permit or registration)
3. Tester; name, address and report date

Certification

1. Signed by team leader / certified observer (include certification date)
- * 2. Signed by reviewer

Introduction

1. Test purpose
2. Test location, type of process
3. Test dates
- * 4. Pollutants tested
5. Test methods used
6. Observers' names (industry and agency)
7. Any other important background information

Summary of Results

1. Pollutant emission results / visible emissions summary
2. Input during test vs. rated capacity
3. Allowable emissions
- * 4. Description of collected samples, to include audits when applicable
5. Discussion of errors, both real and apparent

Source Operation

1. Description of process and control devices
2. Process and control equipment flow diagram
3. Process and control equipment data

* Sampling and Analysis Procedures

1. Sampling port location and dimensioned cross section
2. Sampling point description
3. Sampling train description
4. Brief description of sampling procedures with discussion of deviations from standard methods
5. Brief description of analytical procedures with discussion of deviation from standard methods

Appendix

- * 1. Process data and emission results example calculations
2. Raw field data
- * 3. Laboratory reports
4. Raw production data
- * 5. Calibration procedures and results
6. Project participants and titles
7. Related correspondence
8. Standard procedures

* Not applicable to visible emission evaluations.